The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of investigating emissions from radioactive sources in an environment, the method comprising:[[-]]

providing an instrument, the instrument having a detector assembly, the detector assembly including a detector which generates a signal in response to a detected emission, the detector being provided with a greater level of shielding against emissions in one or more directions than in one or more other directions to define the field of view of the environment for the detector;

introducing the detector assembly of the instrument into the environment; characterised in that the method further comprises:[[-]]

providing the instrument with a moveable shielding component which is moveable relative to the field of view;

obtaining a signal count and/or count rate from the detector with at least a part of the environment within the field of view, the moveable shielding component being out of the field of view, the result forming the reference count and/or reference count rate for that given field of view;

obtaining a signal count and/or count rate from the detector for the given field of view, with a part of the given field of view occluded by the moveable shielding component, the result forming the partially occluded view's count and/or count rate for that given field of view with that given part occluded;

for a given occluded part of a given field of view, the reference count and partially occluded view count and/or reference count rate and partially occluded view count rate being considered against one another to provide information about the emissions arising from the given field of view.

2. (Previously presented) A method according to claim 1 which includes:

obtaining a signal count and/or count rate from the detector with at least part of the environment within the field of view, the moveable shielding component being out of the field of view;

moving at least part of the detector assembly to place at least another part of the environment within the field of view and obtaining a signal count and/or count rate from the detector for that field of view, the moveable shielding component being out of that field of view;

considering the counts and/or count rates obtained for the two or more different fields of view and selecting one or more areas of the environment for further investigation;

and then obtaining the signal count and/or count rate which result forms the reference count and/or reference count rate for that given field of view and the signal count and/or count rate which result forms the partially occluded view count and/or count rate for that given field of view with that given part occluded.

3. (Previously presented) A method according to claim 2 in which signal counts and/or count rates from the detector with at least part of the environment within the field of view, the moveable shielding component being out of the field of view, are obtained for sequential adjoining fields of view.

4. (Previously presented) A method according to claim 2 in which the fields of view are abutting or overlapping.

5. (Previously presented) A method according to claim 2 in which the consideration of the counts and/or count rates obtained from two or more different fields of view involves considering those fields of view which have counts and/or count rates above a threshold level with those fields of view having a count or count rate above the threshold level being selected.

6. (Previously presented) A method according to any claim 2 in which the selected one or more areas of the environment are further investigated by obtaining partially occluded view signal counts and/or count rates for a given field of view with a plurality of different parts of that given field of view occluded.

7. (Previously presented) A method according to claim 6 in which the method includes obtaining signal counts and/or count rates with each part of the given field of view occluded.

8. (Previously presented) A method according to claim 6 in which different parts of the field of view are partially occluded by moving the moveable shielding component within the field of view of the detector with the field of view of the detector fixed.

9. (Previously presented) A method according to claim 1 in which signal counts and/or count rates from the detector for the given field of view are obtained with a plurality of different parts of that given field of view occluded by the moveable shielding component.

10. (Original) A method according to claim 9 in which the method includes obtaining signal counts and/or count rates with each part of the given field of view occluded.

11. (Previously presented) A method according to claim 9 in which different parts of the field of view are occluded by moving the moveable shielding component within the field of view of the detector, with the field of view of the detector fixed.

12. (Previously presented) A method according to claim 1 in which the location (A, B) of the source or sources is determined in three dimensions.

13. (Previously presented) A method according to claim 12 in which the location (A, B) is expressed in terms determined by the tilt and pan angles of the detector assembly and in terms of a distance from the detector to the location (A, B).

14. (Previously presented) A method according to claim 1 in which video camera or camera images of the environment are taken.

15. (Previously presented) A method according to claim 14 in which the video camera or camera is mounted on the moveable shielding component.

16. (Previously presented) A method according to claim 1 in which the detector and detector shielding are rotatably mounted about a first axis (Y-Y) and the moveable shielding component is rotatably mounted about a second axis (X2-X2).

17. (Original) A method according to claim 16 in which the first and second axes are perpendicular to one another.

18. (Previously presented) A method according to claim 1 in which the shielding includes a first generally planar component and a second generally planar component with a gap between them, the gap, at least in part, defining the field of view.

19. (Previously presented) A method according to claim 1 in which the shielding includes two opposing planar surfaces and two non-opposing non-planar surfaces, the opposing planar surfaces at least in part defining the field of view, the gap between the opposing planar surfaces being closed by shielding around part of the detector to at least in part further define the field of view.

20. (Previously presented) A method according to claim 1 in which the shielding defines a field of view having an angular extent of between 4.5° and 6° in one direction.

21. (Previously presented) A method according to claim 1 in which the shielding defines a field of view with an angular extent of between 160° and 200° in a second direction.

22. (Previously presented) A method according to claim 1 in which the detector and detector shielding are rotatably mounted about a first axis and a second axis and the moveable shielding component is rotatably mounted about a first axis and a second axis.

23. (Original) A method according to claim 22 in which the two first axes are separate from one another and / or the two second axes are separate from one another.

24. (Previously presented) A method according to claim 1 in which the shielding comprises a first conical portion and a second conical portion abutting the first conical portion.

25. (Original) A method according to claim 24 in which the second conical portion tapers away from the detector and in an opposing direction to the taper of the first conical portion, the detector being provided on a plane defined by the junction of the first and second conical portions.

26. (Previously presented) A method according to claim 1 in which the moveable shielding component obscures between 5 and 10% of the field of view.

27. (Previously presented) A method according to claim 1 in which means for providing an optical image of the environment are provided on the moveable shielding component.

28. (Previously presented) A method according to claim 1 in which the detector assembly is introduced into the environment by insertion through an aperture, the aperture having a maximum diameter of less than 200mm.

29. (Previously presented) A method according to claim 1 in which the signal count and/or count rate for a field of view, with the moveable shielding component out of the field of view is determined using a count period of less than 5 minutes.

30. (Previously presented) A method according to claim 1 in which different fields of view are considered sequentially, moving from one field of view to an adjoining one.

31. (currently amended) A method according to claim 1 in which ~~the consideration~~ those fields of view which produce high counts and/or count rates **are considered** as being indicative of one or more sources being within those particular fields of view.

32. (currently amended) A method according to claim 1 in which one or more areas ~~may be~~ **are** selected for further investigation.

33. (Previously presented) A method according to claim 32 in which the selection involves selecting one or more of the previously measured fields of view for use in the further investigation, the previously obtained count and/or count rate being used to form the reference count and/or count rate for the selected field of view.

34. (Previously presented) A method according to claim 32 in which the selection includes the selection of one or more fields of view not corresponding to a previously measured field of view, count and/or count rate from the detector for that field of view being obtained with the moveable shielding component out of the field of view, that signal count and/or count rate forming the reference count and/or reference count rate for that selected field of view.

35. (Previously presented) A method according to claim 32 in which partially occluded view signal counts and / or count rates are obtained for a given field of view with a plurality of different parts of that given field of view occluded, the partially occluded view count and/or count rates for the plurality of different occluded views being considered together with the reference count and/or reference count rate for that given field of view to provide information about the emissions arising from that given field of view.

36. (Previously presented) A method according to claim 1 in which different partially occluded views are obtained by moving the moveable shielding component within the field of view of the detector.